Chapter 1 — Introduction, Purpose, and Need

Introduction

This supplemental environmental impact statement (SEIS), prepared jointly by the Oregon/Washington U.S. Department of the Interior (USDI)-Bureau of Land Management (BLM) and U.S. Department of Agriculture (USDA)-Forest Service (FS) Region 6, assesses management alternatives for Port-Orford-cedar within BLM districts and one national forest (NF) in Oregon. A decision selecting one of the Action Alternatives from this SEIS would amend the land and resource management plans for the Coos Bay, Medford, and Roseburg BLM Districts, and the Siskiyou NF. The responsible officials are the BLM State Director for Oregon/Washington and FS Regional Forester for Region 6. The Klamath NF, Six Rivers NF, and Shasta-Trinity NF of Region 5 are Cooperators.

Background

Port-Orford-cedar (*Chamaecyparis lawsoniana* [A. Murr.] Parl.) (Port-Orford-cedar will hereafter be abbreviated POC) is an ecologically and economically important tree species. Its natural range is geographically limited to southwestern Oregon and northwestern California (Figure 1-1), but within that area, it occupies a broad environmental range. Except in the northern part of its range where it is widespread, POC grows primarily along streams and in areas with year-round seepage. It often grows within the active stream channel, where, as large, old trees, it provides shade and long-lasting stream structure (Hansen et al. 2000). POC can be found on ultramafic soils (serpentines) as well as on non-ultramafic soils. Its unique ability to grow well on ultramafic soils makes it the largest tree on many sites, and therefore important for contributing shade and coarse wood in certain stream systems, and for contributing snags and large logs to terrestrial habitats. POC occurs in association with many rare plants, most notably in plant associations on ultramafic soils where it is often the only large conifer. By recycling calcium onto the surface soil, POC may help improve soil fertility, an important quality in harsh ultramafic environments (Ullian and Jules 2000).

Top quality POC logs are currently valued at $2,500 per thousand board feet, and have been valued as high as $12,000 per thousand board feet. Properties of POC wood that make it valuable are its precise machining capability, decay resistance, resistance to chemical corrosion, and aromatic quality. POC is valued in Japan where it is used as a substitute for hinoki cypress (*Chamaecyparis obtusa*) in traditional construction and in the reconstruction of temples and shrines (Hansen et al. 2000).

POC plays a significant role in the cultural, medicinal, and religious life of many Tribes that live within its range. Because of its durability, POC is still used to construct living and sweat houses, both of which hold ceremonial functions. American Indians use many parts of the POC tree: Buds are used to heal sore lungs, throats, and toothaches; leaves are used to treat coughs; and bark and twigs are used to treat kidney problems. Regalia items used in religious

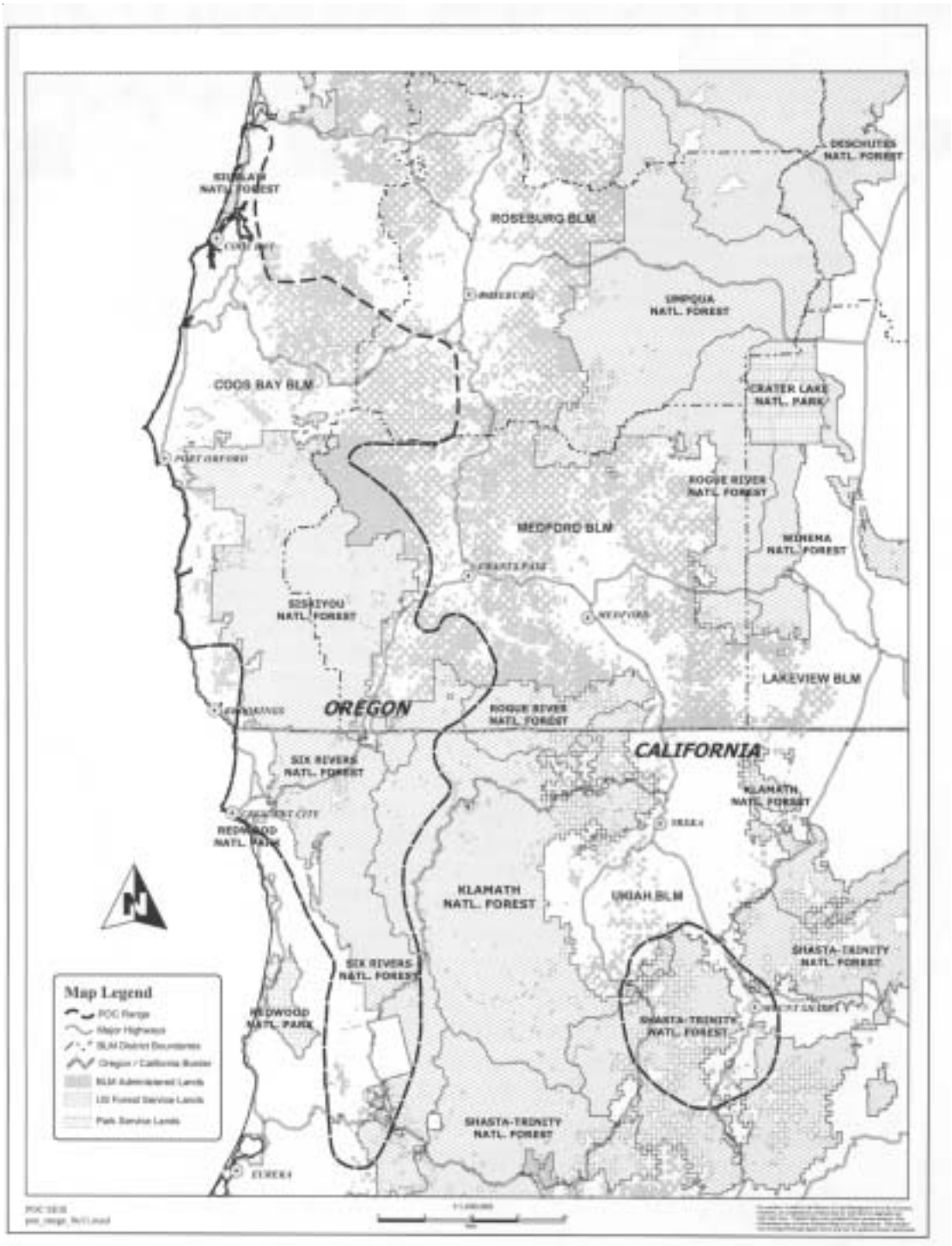

Figure 1-1.—*The range of Port-Orford-cedar in Oregon and California*

ceremonies are made from the wood. Other items, such as feathers and hides, are stored in POC trunks because the oils and aroma of the wood repels insects (Heffner 1984).

POC is affected by an exotic root pathogen, *Phytophthora lateralis* (*Phytophthora lateralis* will hereafter be abbreviated PL), which was first documented in a nursery near Seattle, Washington, in 1923. Nearly always fatal to the trees it infects, research shows the spread of the pathogen is linked, at least in part, to transport of spore-infested soil by human and other vectors. Water-borne spores then readily spread the pathogen downslope and downstream. Other vectors include animals, but the spread associated with them is slower and more localized. The pathogen spread south from Seattle via infected nursery stock and infested soil, and was first reported in the natural range of POC in 1952 near Coos Bay, Oregon. By 1960, infected trees were found on the Siskiyou NF, and surveys in 1964, 1974, 1983, and 1986 showed increasing levels of infestation and tree mortality. Infected trees were first identified in California in 1980. The pathogen now infests about 9 to 15 percent of the federally-administered POC acreage within the range. Much of this acreage is on sites, such as along streams and roads, at high risk to spread the pathogen. Although the disease has spread throughout much of the range and continues to infect more trees in drainages where it is present, approximately 85 to 90 percent of Federal POC acreage is currently uninfested. This is in part because the disease does not readily move above roads or upslope from streams unless carried by some vector, and some trees have a natural resistance to the disease.

In the late 1980s and early 1990s, public awareness of POC and the root disease affecting it reached a high level. In response to public interest and the Agencies' own concerns, the FS and BLM greatly increased their efforts to reduce new occurrences of PL and to maintain POC as an ecologically and economically significant species. Specific management direction was added to each Agencies' land and resource management plans. In general, this direction relies on site-specific analysis at the project level to decide what disease-control or mitigation practices are needed in each situation. Available practices include:

- Washing equipment and Agency vehicles traveling between infested and uninfested areas;
- closing roads to prevent nearby stands from becoming infested;
- limiting access and activities to the dry season;
- treatment of water drawn for roadwork or fire suppression;
- removing POC from along roads to reduce the likelihood of spreading the infestation;
- planting on low-risk sites;
- eradicating the host cedar around infections in order to isolate the infested area; and
- selective breeding to take advantage of the natural resistance exhibited by some trees.

The disease appears destined to eventually spread to high-risk areas over much of the range of POC regardless of efforts to contain it. PL is persistent in the soil for at least several years, and can be transported by animals, hunters, and other vectors even to areas that have no roads. Agency actions can reduce the rate of spread and the percent of trees affected within given areas, but the effectiveness of these actions varies for a variety of reasons. For example, on wetter areas in the northern part of the range, infected and uninfected POC are well-distributed across the landscape and regenerate readily on disturbed sites including road cuts and fills. Where such conditions exist on "checkerboard" Federal lands intermingled with private lands, timber hauling and other public use is unrestricted on public and permit roads across Agency lands. Hence, many of the techniques the Agencies might use, including

washing vehicles, removing host trees adjacent to roads, or limiting activities to the dry season, are not available or are less effective on these checkerboard ownerships, or are not cost-efficient given the relatively small gain in protection. Regardless of the level and effectiveness of Agency actions, it is unlikely the disease will kill all POC trees because (1) they produce massive amounts of seed, (2) many trees are located upslope from roads and streams or on drier areas unfavorable to the pathogen, or (3) they are naturally resistant to the disease.

A small percent of POC appear resistant to the disease. In resistance tests as old as 16 years, a majority of tested seedlings continue to survive in infested soil. An operational resistance breeding program started by the FS and BLM in 1997 has developed resistant populations. Breeding is advancing relatively quickly, in part because POC can develop seed cones at 4 or 5 years of age or sooner. Resistant seed has been sown in containers to be used to restore areas burned in the 2002 Biscuit Fire in southwest Oregon.

In 2002, a decision by the U.S. Court of Appeals for the Ninth Circuit found that a BLM project-specific environmental analysis (EA) did not adequately consider cumulative effects to the health of POC over its entire range in light of the reasonably foreseeable actions of the Agencies and others. This decision held that even though there is existing management direction to limit the spread of the disease, and even though the Agencies have been vigorously implementing that direction, there needs to be consideration of the cumulative range-wide effects of the current management direction and other reasonably foreseeable actions, not just a consideration of the effects within the immediate geographic area affected by the proposed project. It follows that potential alternatives to the current direction need to be considered as well. This SEIS examines the current POC management direction, and alternative strategies, designed to maintain POC at desired levels in the ecosystem and mitigate the root disease damage.

The Need

The Need to which the Agencies are responding remains the same as in the late 1980s and early 1990s when the Agencies adopted their current management direction. The Agencies have a need, in response to public interest and their own concerns, for maintenance of POC as an ecologically and economically significant species on BLM and NF lands. POC plays a key role in some forest ecosystems, provides culturally significant products for Tribes, and provides unique forest products.

It is important to note that the Agencies' Need for maintenance of POC has not been created by a previous management action, law, or even a change in societal priorities. The Need arises primarily from the progressive mortality of POC from an introduced pathogen that seems destined to spread over much of the range of POC. The Agencies have an opportunity to affect how fast the disease will spread across the range at least in the short term, and in most areas whether it will reach some trees at all. The Agencies also have an opportunity to mitigate some of the damage caused by the disease by developing disease-resistant planting stock to replace disease-killed trees.

The Purpose

To meet the need for maintenance of POC as an ecologically and economically significant species on BLM and NF lands, the Agencies are seeking a management strategy that, to the degree such treatments are needed, practical, and cost-effective, reduces disease introductions, slows the spread of the disease where present, and/or mitigates the occurrence of the disease on POC. Cost-effectiveness is determined by:

- Whether the treatments themselves are practicable;
- whether factors outside the Agencies' control influence the effectiveness of specific measures;
- the significance of the role POC plays in aquatic and terrestrial ecosystems;
- the commercial value of POC; and
- weighing these benefits and factors against the costs of the treatment program.

Also, any strategy for controlling the disease must allow the Agencies to meet their multiple-use mandates, including:

- Providing access to POC products;
- avoiding unnecessary restrictions to public access and use;
- providing for continued extraction of a wide range of products;
- permitting fuel reduction and forest health treatments; and
- conducting fire suppression activities.

Reduced ability to meet these mandates will be considered as part of the costs of the treatment program.

This SEIS analyzes a range of alternatives that would meet the Need, and variously would meet elements of the Purpose. Meeting the Need does not necessarily require a change in the current management direction. Arguably, all that is missing from the current direction is a determination of the range-wide environmental effects of that direction and an informed decision by the responsible officials. The No-Action Alternative in this SEIS is not just presented as a point from which to measure the effects of the Action Alternatives; it is also expected to meet the Purpose and Need. Other alternatives in this SEIS provide either higher, lower, or different kinds of protection and mitigation measures than the No-Action Alternative.

Issues

The following Issues are part of the above Purpose, but are more specifically itemized here to help direct the affected environment and effects discussions in Chapter 3&4.

1) What are effective management strategies to maintain POC in the ecosystem?

2) How are aquatic and terrestrial ecosystems affected by the loss of POC?

3) Should certain activities be restricted or modified in consideration of POC, including:

a. POC product harvest, such as boughs and wood;
b. fuels treatments or fire suppression activities;
c. off-highway vehicles and other recreation use and access;
d. special forest products not specifically related to POC, such as firewood collection and mushroom picking; and
e. forest management activities?

4) How does the management of both Federal and non-Federal lands over time affect POC?

5) Should the management strategy be different in parts of the range where conditions vary?

6) Is the management strategy cost-effective?

7) Will the management strategy meet Tribal needs for culturally significant products?

Information about these issues and how each is affected by the alternatives is included in the effects discussions in Chapter 3&4.

Scoping

Scoping is the term used to identify issues, concerns, and opportunities associated with the proposed action in an EIS. Public involvement in the scoping process began when the Notice of Intent to prepare this SEIS was published in the *Federal Register* (68[27]:6709–6710) on February 10, 2003. The Notice of Intent announced the SEIS would develop alternative management strategies for the Oregon portion of the POC range and analyze effects of those strategies throughout the entire natural range of the species. The Notice described scoping as the time to identify interested and affected individuals and groups, and to identify issues associated with the management of POC. The Notice of Intent and scoping letter was posted to the SEIS website on February 10, 2003, at http://www.or.blm.gov/planning/Port-Orford-cedar_SEIS/. Also on February 10, the Agencies distributed news releases to approximately 68 newspapers or radio stations within or near the range of POC, and began mailing approximately 600 scoping letters to individuals, groups, government agencies, and Tribes identified from District and Forest "interested publics" lists as potentially interested in the management of POC on Federal lands in Oregon (see the Culturally Significant Products for American Indian Tribes section in Chapter 3&4 for more detail about Tribes). The letter provided additional detail about the need and the analysis, explained how to remain on the Agencies' mailing list for the draft SEIS and related documents, gave the SEIS website address, and again invited public input.

The Agencies received 77 letters or e-mail messages asking to be on the mailing list; 63 of those also contained other scoping-related comments. These scoping letters helped define the issues and design the alternatives presented in Chapter 2 of this SEIS.